CLAIMS

1. A peptide compound, characterized in that it comprises a sequence of at least 8 consecutive amino acids of the sequence SEQ ID No. 1, and in that it causes a specific T response.

2. A peptide compound as claimed in claim 1, characterized in that it comprises a sequence which has at least 80% identity with the sequence SPRWWPTCL (SEQ ID No. 2).

Sub A1 3. A peptide compound as claimed in either of claims 1 and 2, characterized in that it comprises at least one element other than natural amino acids.

4. A method for identifying peptide compounds comprising a sequence which has at least 80% identity with a sequence of approximately 9 to 10 consecutive amino acids of the sequence SEQ ID No. 1, characterized in that it comprises the following steps:

a) determining fragments which possess a sequence of approximately 9 to 10 amino acids comprising an anchoring motif for a given HLA molecule,

b) determining the immunogenicity of the peptide fragments obtained in step a), preferably by carrying out an Elispot assay.

5. A peptide compound which can be obtained using a method as claimed in claim 4.

Sub A2 6. A method for revealing artificial point modifications or mutations which are capable of increasing the immunogenicity of the peptide compounds as claimed in one of claims 1 to 3 and 5, characterized in that it comprises the following steps:

Sub A2 cont a) Determining fragments which possess a sequence of approximately 9 to 10 amino acids comprising an anchoring motif for a given HLA molecule,

b) introducing an additional point modification (for example a post-translational modification) or mutation at residues 4, 5, 6, 7 or 8,

c) determining the immunogenicity of the peptide fragments obtained in step b), preferably by carrying out an Elispot assay.

7. A peptide compound which can be obtained using a method as claimed in claim 6, characterized in that it comprises a sequence of approximately 9 to 10 amino acids of the sequence SEQ ID No. 1 which has at least one mutation or one modification with respect to the sequence SEQ ID No. 1, and in that it causes a specific T response.

8. A peptide compound as claimed in claim 7, characterized in that it is derived from the sequence SPRWWPTCL (SEQ ID No. 2).

Sub A3 9. A DNA fragment encoding at least one peptide fragment of one of claims 1 to 3, 5, 7 and 8.

10. A DNA fragment as claimed in claim 9, characterized in that it comprises a sequence which has at least 50% identity with a sequence of at least 24 consecutive nucleotides of the sequence SEQ ID No. 3.

Sub A4 11. A vector for expressing a peptide fragment as claimed in one of [lacuna] 1 to 3, 5, 7 and 8, containing a DNA fragment of claim 10 fused to a promoter which is effective in eukaryotic cells and/or in prokaryotic cells, in particular in human cells.

12. An expression vector as claimed in claim 11, also comprising one or more selection marker(s) and, optionally, one or more sequence(s) encoding factors which activate immune defenses, such as cytokines and/or lymphokines.

13. A vector as claimed in either of claims 11 and 12, characterized in that it is a viral vector, a plasmid or a pseudovector.

14. A dendritic cell loaded with peptide compounds as claimed in one of claims 1 to 3, 5, 7 and 8.

15. A dendritic cell transformed with the expression vector as claimed in one of claims 11 to 13.

16. A dendritic cell as claimed in either of claims 14 and 15, characterized in that it forms part of the macrophages.

17. A pharmaceutical composition comprising a peptide compound or a mixture of peptide compounds as claimed in one of claims 1 to 3, 5, 7 and 8 and a pharmaceutically acceptable vehicle.

18. A pharmaceutical composition comprising an expression vector as claimed in one of claims 11 to 13 and a pharmaceutically acceptable vehicle.

19. A pharmaceutical composition comprising in particular a DNA fragment as claimed in either of claims 9 and 10 and a pharmaceutically acceptable vehicle.

20. A pharmaceutical composition comprising the cells as claimed in one of claims 14 to 16 and a pharmaceutically acceptable vehicle.

21. A pharmaceutical composition as claimed in one of claims 17 to 20, characterized in that it also comprises one or more immunological adjuvants, in particular agents which are cytotoxic for tumors.

22. A pharmaceutical composition as claimed in one of claims 17 to 21, characterized in that it comprises a pharmaceutical vehicle which is compatible with IV, subcutaneous, oral or nasal administration.

23. A pharmaceutical composition as claimed in one of claims 17 to 22, characterized in that it comprises a pharmaceutical vehicle selected from positively or negatively charged liposomes, nanoparticles or lipid emulsions.

24. Use of a peptide compound as claimed in one of claims 1 to 3, 5, 7 and 8 for manufacturing a medicinal product.

25. Use of a peptide compound as claimed in one of claims 1 to 3, 5, 7 and 8 for manufacturing a medicinal product intended for treating cancer.

26. Use of a peptide compound as claimed in one of claims 1 to 3, 5, 7 and 8 for manufacturing a medicinal product intended for immunization ex vivo, which consists in particular in inducing tumor-specific CTLs in vitro, expanding them and reinjecting them, said induction possibly being carried out with the aid of loaded dendritic cells.

27. Use of a peptide compound as claimed in one of claims 1 to 3, 5, 7 and 8 for manufacturing a medicinal product intended for immunization in vivo.

Sub A5 cont

28. Use of a peptide compound as claimed in one of claims 1 to 3, 5, 7 and 8 for manufacturing a medicinal product intended for the treatment of cancer, in particular solid tumors, especially carcinomas, melanomas, neuroblastomas, preferably hepatocarcinomas and adenocarcinomas of the colon or of the kidney.

29. Use of a peptide compound as claimed in one of claims 1 to 3, 5, 7 and 8 for increasing, in culture medium, the CTL population of tumors and/or inducing the secretion by said CTLs of cytotoxic factors such as, for example, IL-2, IFN γ and TNF.

30. Use of a peptide compound as claimed in one of claims 1 to 3, 5, 7 and 8 for manufacturing a medicinal product intended for stimulating immune defenses, in particular to increase the CTL population of tumors and/or to induce the secretion by said CTLs of cytotoxic factors such as, for example, IL-2, IFN-γ and TNF.

31. A method for producing an antibody which recognizes a peptide compound as claimed in one of claims 1 to 3, 5, 7 and 8, comprising the steps consisting in:

a) immunizing a mammal with said peptide compound,

b) isolating a monoclonal antibody which binds to said peptide in an immunological assay.

32. A monoclonal antibody which can be obtained using the method as claimed in claim 31.

33. A method for detecting a peptide or polypeptide encoded by the ORF+1 of iCE, comprising the steps consisting in:

a) bringing a sample removed from an individual into contact with a monoclonal antibody as claimed in claim 32,

b) allowing the formation of the peptide or polypeptide/antibody complex,

c) detecting said peptide or polypeptide by means of a detectable label which is in the complex or which binds to the complex.

34. A diagnostic kit comprising in particular an antibody as claimed in claim 32 for detecting cancer.

35. A diagnostic kit comprising in particular an antibody as claimed in claim 32 for the prognostic of existing cancer in an individual.

36. A pharmaceutical composition comprising in particular a monoclonal antibody as claimed in claim 32 and a pharmaceutically acceptable vehicle.